FCC RF Test Report

APPLICANT	:	**Ericsson Enterprise Wireless Solutions, Inc.**
EQUIPMENT	:	**5G Sub-6 GHz LGA Module**
BRAND NAME	:	**Ericsson**
MODEL NAME	:	**RG650V-NA**
FCC ID	:	**UXX-2024RG650VNA**
STANDARD	:	**47 CFR Part 96**
CLASSIFICATION	:	**Citizens Band End User Devices (CBE)**
EQUIPMENT TYPE	:	**End User Equipment**
TEST DATE(S)	:	**Dec. 23, 2024 ~ Jan. 24, 2025**

We, Sporton International Inc. (ShenZhen), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (ShenZhen), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.01

Sporton International Inc. (ShenZhen)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FG4D0656L	01	Initial issue of report	Feb. 17, 2025

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.3	§2.1046	Conducted Output Power	Pass	-
3.4	§96.41	Maximum E.I.R.P		-
4.4	§2.1051 §96.41	Radiated Spurious Emission	Pass	Under limit 9.42 dB at 14463.16 MHz

Remark: This report by changing module trace design and adding Antenna.

Conformity Assessment Condition:
1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account. 2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”
Disclaimer:
The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Ericsson Enterprise Wireless Solutions, Inc.
1100 W. Idaho St. Boise, ID 83702

1.2 Manufacturer

Ericsson Enterprise Wireless Solutions, Inc.
1100 W. Idaho St. Boise, ID 83702

1.3 Feature of Equipment Under Test

Product Feature	
Equipment	5G Sub-6 GHz LGA Module
Brand Name	Ericsson
Model Name	RG650V-NA
FCC ID	UXX-2024RG650VNA
Tx Frequency	5G NR n48: 3550 MHz ~ 3700 MHz
Rx Frequency	5G NR n48: 3550 MHz ~ 3700 MHz
SCS	30kHz
Bandwidth	10MHz / 15MHz / 20MHz / 30MHz / 40MHz
Type of Modulation	CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM
IMEI Code	Conducted: 357214899990622 Radiation: 866838070003881
HW Version	RG650V-NA
SW Version	RG650VNA01AAR01A04G8G
EUT Stage	Production Unit

	Support Band	Ant. Type	Max. Antenna Gain (dBi)		Operating mode
			Ant.1	Ant.7	
Support Band	n48	Dipole	3.24	-	SISO
Transmit/Receive	/	/	TX/RX	TX/RX	/

	Support Band	Ant. Type	Max. Antenna Gain (dBi)		Operating mode	Total TX ant.	Measured Ant.	MIMO Gain (dBi)
			Ant.1	Ant.7				
Support Band	n48	Dipole	3.24	3.24	MIMO	2	Ant.1&7	3.24
Transmit/Receive	/	/	TX/RX	TX/RX	/	/	TX/RX	TX/RX

Remark:

1. 5G NR n48 supports SA mode only.
2. 5G NR n48 supports UL MIMO mode, the MIMO mode is completely uncorrelated, so the directional gain is selected the maximum gain among all antennas.
3. 5G NR n48 UL MIMO supports CP-OFDM Mode only.

1.4 Maximum Conducted Power

5G NR n48		PI/2 BPSK / QPSK	16QAM/64QAM/256QAM
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Maximum Conducted power (W)
10	3555.00~3694.98	0.0484	0.0488
15	3557.52~3692.50	0.0494	0.0491
20	3560.01~3690.00	0.0480	0.0476
30	3564.99~3684.99	0.0490	0.0490
40	3570.00~3679.98	0.0495	0.0472

5G NR n48 UL MIMO		QPSK	16QAM/64QAM/256QAM
BW (MHz)	Frequency Range (MHz)	Maximum Conducted power (W)	Maximum Conducted power (W)
10	3555.00~3694.98	0.0460	0.0442
15	3557.52~3692.50	0.0465	0.0451
20	3560.01~3690.00	0.0459	0.0448
30	3564.99~3684.99	0.0476	0.0465
40	3570.00~3679.98	0.0476	0.0478

Note: All modulations have been tested, only the worst test results of PSK & QAM are shown in the report.

1.5 Testing Site

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH02-SZ	CN1256	421272

1.6 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH02-SZ	AUDIX	E3	6.2009-8-24a

1.7 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ANSI C63.26-2015
- 47 CFR Part 96
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 940660 D01 Part 96 CBRS v03
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

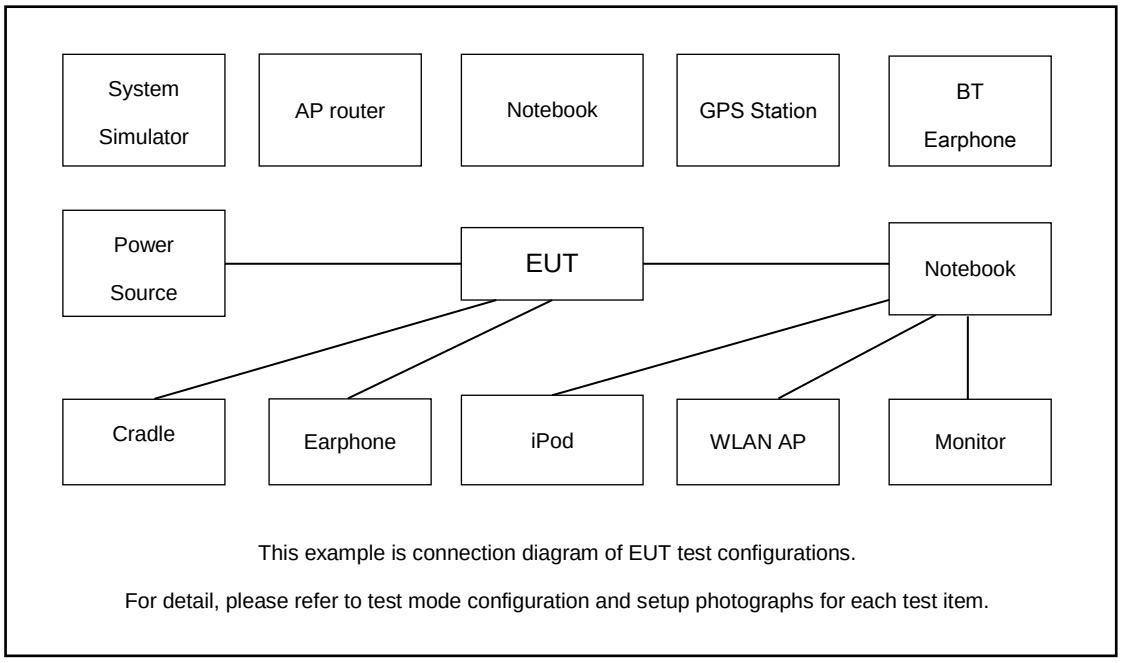
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.

Test Items	Band	Bandwidth (MHz)						Modulation					RB #		Test Channel		
		5	10	15	20	30	40	PI/2 BPSK	QPSK	16QAM	64QAM	256 QAM	1	Full	L	M	H
Max. Output Power	n48	-	v	v	v	v	v	v	v	v			v		v	v	v
E.I.R.P	n48	-	v	v	v	v	v	v	v	v			v		v	v	v
Radiated Spurious Emission	n48	Worst Case													v	v	v
Remark	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. All test items are based on engineering evaluation.																

2.2 Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 Support Unit used in test configuration

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Base Station	Anritsu	MT8821C	Fcc DoC	N/A	Shielded, 1.5m
2.	Base Station	Anritsu	MT8000A	Fcc DoC	N/A	Shielded, 1.5m

2.4 Frequency List of Low/Middle/High Channels

5G NR n48 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
40	Channel	638000	641666	645332
	Frequency	3570	3624.99	3679.98
30	Channel	637666	641666	645666
	Frequency	3564.99	3624.99	3684.99
20	Channel	637334	641666	646000
	Frequency	3560.01	3624.99	3690
15	Channel	637168	641666	646166
	Frequency	3557.52	3624.99	3692.49
10	Channel	637000	641666	646332
	Frequency	3555	3624.99	3694.98

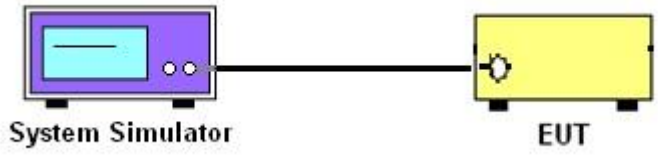
3 Conducted Test Items

3.1 Measuring Instruments

See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.2.2 Test Result of Conducted Test

Please refer to Appendix A.

3.3 Conducted Output Power

3.3.1 Description of the Conducted Output Power Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

3.3.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

3.4 EIRP

3.4.1 Description of the EIRP Measurement

EIRP limits for CBRS equipment as below table:

Device		Maximum EIRP (dBm/10 MHz)	Maximum PSD (dBm/MHz)
Applied	**End User Device**	23	n/a
	Category A CBSD	30	20
	Category B CBSD	47	37

Remark: The worst case EIRP shown in this section is found with NR operating only using 1RB. As such, the EIRP/10MHz and full channel EIRP values will be identical since 1RB is fully contained within all available channel bandwidths for n48

3.4.2 Test Procedures for EIRP

1. Establishing a communications link with the call box (Base station) to measure the Maximum conducted power, the parameters were set to force the EUT transmitting at maximum output power level. Use the average power measurement function to measure total channel power of each channel bandwidth (per ANSI C63.26-2015 Section 5.2.1)

2. Determining ERP and/or EIRP from conducted RF output power measurements (Per ANSI C63.26-2015 Section 5.2.5.5)

   $EIRP = P_T + G_T – L_C$, $ERP = EIRP - 2.15$, where

   P_T = transmitter output power in dBm

   G_T = gain of the transmitting antenna in dBi

   L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

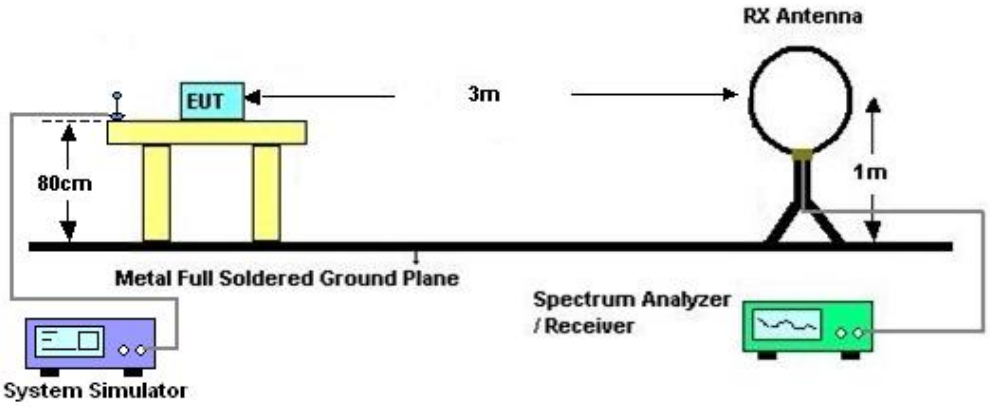
4 Radiated Test Items

4.1 Measuring Instruments

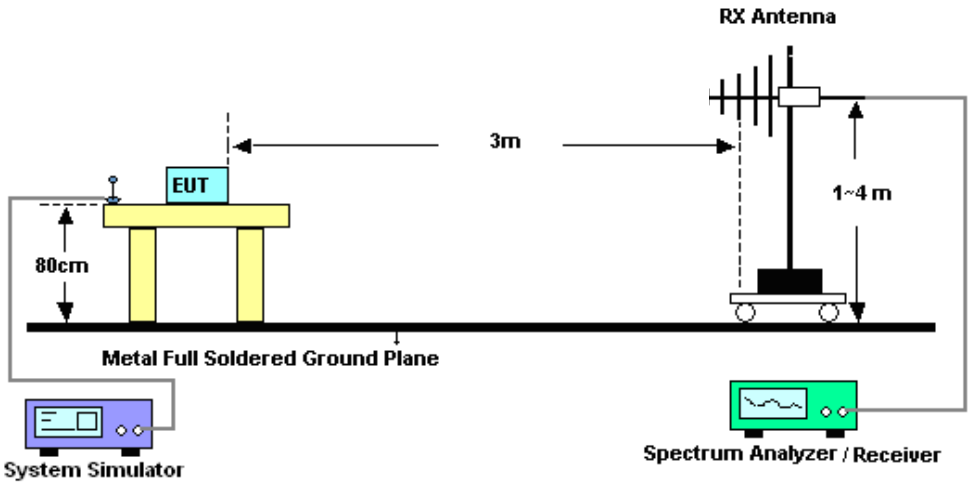
See list of measuring instruments of this test report.

4.2 Test Setup

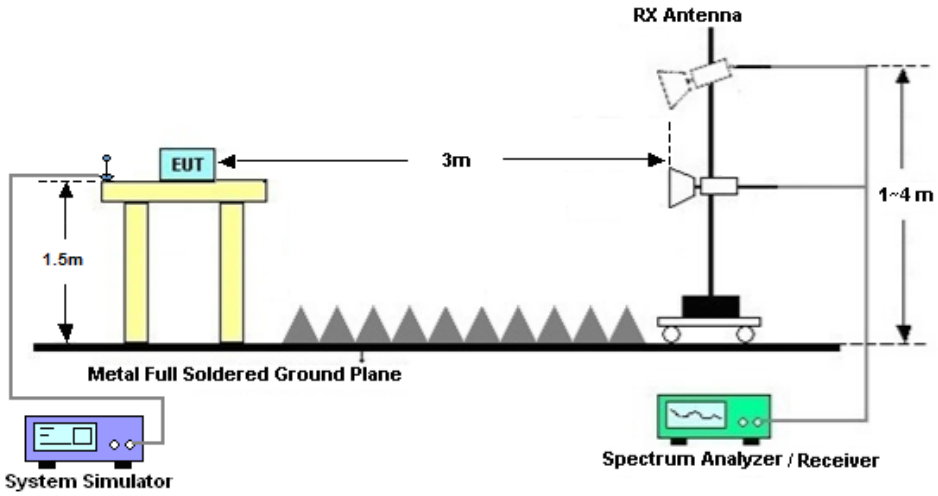
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI C63.26-2015.

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least -40dBm / MHz.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
5. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
   Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
   EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
   ERP (dBm) = EIRP - 2.15
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
   The limit line is −40dBm/MHz

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 09, 2024	Jan. 24, 2025	Apr. 08, 2025	Conducted (TH01-SZ)
DC Power Supply	TTI	PL330P	290070	Max 32V，3A	Oct. 14, 2024	Jan. 24, 2025	Oct. 13, 2025	Conducted (TH01-SZ)
Power Divider	Titan	P02N005180	923402	0.4GHz~26.5GHz	Nov. 08, 2024	Jan. 24, 2025	Nov. 07, 2025	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 03, 2024	Dec. 23, 2024	Jul. 02, 2025	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 29, 2023	Dec. 23, 2024	Dec. 28, 2024	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Dec. 23, 2024	Oct. 23, 2025	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Dec. 23, 2024	Jul. 04, 2025	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 03, 2024	Dec. 23, 2024	Jul. 03, 2025	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	Dec. 23, 2024	Apr. 08, 2025	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 18, 2024	Dec. 23, 2024	Oct. 17, 2025	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 14, 2024	Dec. 23, 2024	Oct. 13, 2025	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010003043	N/A	Oct. 18, 2024	Dec. 23, 2024	Oct. 17, 2025	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Dec. 23, 2024	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Dec. 23, 2024	NCR	Radiation (03CH02-SZ)

NCR: No Calibration Required

6 Measurement Uncertainty

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Power	±1.34 dB

Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.47 dB

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.47 dB

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.31 dB

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.72 dB

---------- THE END ----------

Appendix A. Test Results of Conducted Test

Test Engineer :	Khan Zheng	Temperature :	22~23℃
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and EIRP

5G NR n48

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
48	30	10	637000	3555	DFT-s-OFDM PI/2 BPSK	1@1	15.91	19.15	0.0822
48	30	10	637000	3555	DFT-s-OFDM QPSK	1@1	15.87	19.11	0.0815
48	30	10	637000	3555	DFT-s-OFDM 16 QAM	1@1	15.93	19.17	0.0826
48	30	10	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@1	16.59	19.83	0.0962
48	30	10	641666	3624.99	DFT-s-OFDM QPSK	1@1	16.68	19.92	0.0982
48	30	10	641666	3624.99	DFT-s-OFDM 16 QAM	1@1	16.65	19.89	0.0975
48	30	10	646332	3694.98	DFT-s-OFDM PI/2 BPSK	1@1	16.85	20.09	0.1021
48	30	10	646332	3694.98	DFT-s-OFDM QPSK	1@1	16.83	20.07	0.1016
48	30	10	646332	3694.98	DFT-s-OFDM 16 QAM	1@1	16.88	20.12	0.1028
48	30	15	637168	3557.52	DFT-s-OFDM PI/2 BPSK	1@1	15.91	19.15	0.0822
48	30	15	637168	3557.52	DFT-s-OFDM QPSK	1@1	16	19.24	0.0839
48	30	15	637168	3557.52	DFT-s-OFDM 16 QAM	1@1	16	19.24	0.0839
48	30	15	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@1	16.6	19.84	0.0964
48	30	15	641666	3624.99	DFT-s-OFDM QPSK	1@1	16.54	19.78	0.0951
48	30	15	641666	3624.99	DFT-s-OFDM 16 QAM	1@1	16.53	19.77	0.0948
48	30	15	646166	3692.49	DFT-s-OFDM PI/2 BPSK	1@1	16.85	20.09	0.1021
48	30	15	646166	3692.49	DFT-s-OFDM QPSK	1@1	16.94	20.18	0.1042
48	30	15	646166	3692.49	DFT-s-OFDM 16 QAM	1@1	16.91	20.15	0.1035
48	30	20	637334	3560.01	DFT-s-OFDM PI/2 BPSK	1@1	15.92	19.16	0.0824
48	30	20	637334	3560.01	DFT-s-OFDM QPSK	1@1	16.01	19.25	0.0841
48	30	20	637334	3560.01	DFT-s-OFDM 16 QAM	1@1	15.87	19.11	0.0815
48	30	20	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@1	16.42	19.66	0.0925
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	1@1	16.47	19.71	0.0935
48	30	20	641666	3624.99	DFT-s-OFDM 16 QAM	1@1	16.45	19.69	0.0931
48	30	20	646000	3690	DFT-s-OFDM PI/2 BPSK	1@1	16.76	20	0.1000
48	30	20	646000	3690	DFT-s-OFDM QPSK	1@1	16.81	20.05	0.1012
48	30	20	646000	3690	DFT-s-OFDM 16 QAM	1@1	16.78	20.02	0.1005
48	30	30	637668	3565.02	DFT-s-OFDM PI/2 BPSK	1@1	16.04	19.28	0.0847

NR Band	SCS	BandWidth	Arfcn	Freq(MHz)	Modulation	RB	Conducted Power(dBm)	EIRP(dBm)	EIRP(W)
48	30	30	637668	3565.02	DFT-s-OFDM QPSK	1@1	16.12	19.36	0.0863
48	30	30	637668	3565.02	DFT-s-OFDM 16 QAM	1@1	16.1	19.34	0.0859
48	30	30	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@1	16.67	19.91	0.0979
48	30	30	641666	3624.99	DFT-s-OFDM QPSK	1@1	16.69	19.93	0.0984
48	30	30	641666	3624.99	DFT-s-OFDM 16 QAM	1@1	16.59	19.83	0.0962
48	30	30	645666	3684.99	DFT-s-OFDM PI/2 BPSK	1@1	16.9	20.14	0.1033
48	30	30	645666	3684.99	DFT-s-OFDM QPSK	1@1	16.83	20.07	0.1016
48	30	30	645666	3684.99	DFT-s-OFDM 16 QAM	1@1	16.9	20.14	0.1033
48	30	40	638000	3570	DFT-s-OFDM PI/2 BPSK	1@1	15.94	19.18	0.0828
48	30	40	638000	3570	DFT-s-OFDM QPSK	1@1	16.02	19.26	0.0843
48	30	40	638000	3570	DFT-s-OFDM 16 QAM	1@1	15.95	19.19	0.0830
48	30	40	641666	3624.99	DFT-s-OFDM PI/2 BPSK	1@1	16.52	19.76	0.0946
48	30	40	641666	3624.99	DFT-s-OFDM QPSK	1@1	16.49	19.73	0.0940
48	30	40	641666	3624.99	DFT-s-OFDM 16 QAM	1@1	16.53	19.77	0.0948
48	30	40	645332	3679.98	DFT-s-OFDM PI/2 BPSK	1@1	16.95	20.19	0.1045
48	30	40	645332	3679.98	DFT-s-OFDM QPSK	1@1	16.89	20.13	0.1030
48	30	40	645332	3679.98	DFT-s-OFDM 16 QAM	1@1	16.74	19.98	0.0995

5G NR n48 UL MIMO

NR Band	SCS	BandWidth	Arfcn	Freq (MHz)	Modulation	RB	ANT1 Power(dBm)	ANT7 Power(dBm)	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
48	30	10	637000	3555	CP-OFDM QPSK	1@1	13.27	12.95	16.12	19.36	0.0863
48	30	10	637000	3555	CP-OFDM 16 QAM	1@1	12.95	13.2	16.09	19.33	0.0857
48	30	10	641666	3624.99	CP-OFDM QPSK	1@1	13.63	13.04	16.36	19.6	0.0912
48	30	10	641666	3624.99	CP-OFDM 16 QAM	1@1	13.44	13.35	16.41	19.65	0.0923
48	30	10	646332	3694.98	CP-OFDM QPSK	1@1	13.9	13.33	16.63	19.87	0.0971
48	30	10	646332	3694.98	CP-OFDM 16 QAM	1@1	13.59	13.29	16.45	19.69	0.0931
48	30	15	637168	3557.52	CP-OFDM QPSK	1@1	13.21	12.88	16.06	19.3	0.0851
48	30	15	637168	3557.52	CP-OFDM 16 QAM	1@1	13.07	13.19	16.14	19.38	0.0867
48	30	15	641666	3624.99	CP-OFDM QPSK	1@1	13.57	13.12	16.36	19.6	0.0912
48	30	15	641666	3624.99	CP-OFDM 16 QAM	1@1	13.52	13.43	16.49	19.73	0.0940
48	30	15	646166	3692.49	CP-OFDM QPSK	1@1	13.91	13.39	16.67	19.91	0.0979
48	30	15	646166	3692.49	CP-OFDM 16 QAM	1@1	13.67	13.38	16.54	19.78	0.0951
48	30	20	637334	3560.01	CP-OFDM QPSK	1@1	13.18	12.85	16.03	19.27	0.0845
48	30	20	637334	3560.01	CP-OFDM 16 QAM	1@1	12.96	13.13	16.06	19.3	0.0851
48	30	20	641666	3624.99	CP-OFDM QPSK	1@1	13.55	13.12	16.35	19.59	0.0910

NR Band	SCS	BandWidth	Arfcn	Freq (MHz)	Modulation	RB	ANT1 Power(dBm)	ANT7 Power(dBm)	Conducted Power(dBm)	EIRP (dBm)	EIRP (W)
48	30	20	641666	3624.99	CP-OFDM 16 QAM	1@1	13.46	13.42	16.45	19.69	0.0931
48	30	20	646000	3690	CP-OFDM QPSK	1@1	13.86	13.35	16.62	19.86	0.0968
48	30	20	646000	3690	CP-OFDM 16 QAM	1@1	13.58	13.41	16.51	19.75	0.0944
48	30	30	637668	3565.02	CP-OFDM QPSK	1@1	13.35	13.05	16.21	19.45	0.0881
48	30	30	637668	3565.02	CP-OFDM 16 QAM	1@1	13.07	13.32	16.21	19.45	0.0881
48	30	30	641666	3624.99	CP-OFDM QPSK	1@1	13.73	13.3	16.53	19.77	0.0948
48	30	30	641666	3624.99	CP-OFDM 16 QAM	1@1	13.67	13.52	16.61	19.85	0.0966
48	30	30	645666	3684.99	CP-OFDM QPSK	1@1	13.99	13.54	16.78	20.02	0.1005
48	30	30	645666	3684.99	CP-OFDM 16 QAM	1@1	13.76	13.56	16.67	19.91	0.0979
48	30	40	638000	3570	CP-OFDM QPSK	1@1	13.3	13.35	16.34	19.58	0.0908
48	30	40	638000	3570	CP-OFDM 16 QAM	1@1	13.11	13.47	16.30	19.54	0.0899
48	30	40	641666	3624.99	CP-OFDM QPSK	1@1	13.75	13.51	16.64	19.88	0.0973
48	30	40	641666	3624.99	CP-OFDM 16 QAM	1@1	13.69	13.61	16.66	19.9	0.0977
48	30	40	645332	3679.98	CP-OFDM QPSK	1@1	13.9	13.64	16.78	20.02	0.1005
48	30	40	645332	3679.98	CP-OFDM 16 QAM	1@1	13.87	13.69	16.79	20.03	0.1007

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Reid Huang	Temperature :	22~25℃
		Relative Humidity :	48~52%

5G NR n48 SA / 20MHz / BPSK / Ant.1									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7101.62	-59.70	-40	-19.70	-65.43	-63.03	8.25	11.58	H
	10652.43	-55.97	-40	-15.97	-68.53	-57.52	10.45	12.00	H
	14203.24	-50.84	-40	-10.84	-67.30	-52.55	11.74	13.45	H
	7101.62	-59.23	-40	-19.23	-65.37	-62.56	8.25	11.58	V
	10652.43	-56.38	-40	-16.38	-68.48	-57.93	10.45	12.00	V
	14203.24	-51.30	-40	-11.30	-67.31	-53.01	11.74	13.45	V
Middle	7231.58	-59.80	-40	-19.80	-65.85	-63.10	8.30	11.60	H
	10847.37	-54.49	-40	-14.49	-67.85	-56.01	10.48	12.00	H
	14463.16	-49.42	-40	-9.42	-66.99	-51.12	11.80	13.50	H
	7231.58	-59.48	-40	-19.48	-65.84	-62.78	8.30	11.60	V
	10847.37	-54.46	-40	-14.46	-67.45	-55.98	10.48	12.00	V
	14463.16	-50.34	-40	-10.34	-67.33	-52.04	11.80	13.50	V
Highest	7231.58	-59.80	-40	-19.80	-65.85	-63.10	8.30	11.60	H
	10847.37	-54.49	-40	-14.49	-67.85	-56.01	10.48	12.00	H
	14463.16	-49.42	-40	-9.42	-66.99	-51.12	11.80	13.50	H
	7231.58	-59.48	-40	-19.48	-65.84	-62.78	8.30	11.60	V
	10847.37	-54.46	-40	-14.46	-67.45	-55.98	10.48	12.00	V
	14463.16	-50.34	-40	-10.34	-67.33	-52.04	11.80	13.50	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

5G NR n48 UL MIMO / 20MHz / QPSK / Ant.1+7									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7101.62	-60.17	-40	-20.17	-65.90	-63.50	8.25	11.58	H
	10652.43	-56.24	-40	-16.24	-68.80	-57.79	10.45	12.00	H
	14203.24	-51.21	-40	-11.21	-67.67	-52.92	11.74	13.45	H
	7101.62	-59.78	-40	-19.78	-65.92	-63.11	8.25	11.58	V
	10652.43	-56.58	-40	-16.58	-68.68	-58.13	10.45	12.00	V
	14203.24	-51.79	-40	-11.79	-67.80	-53.50	11.74	13.45	V
Middle	7231.58	-60.48	-40	-20.48	-66.53	-63.78	8.30	11.60	H
	10847.37	-54.93	-40	-14.93	-68.29	-56.45	10.48	12.00	H
	14463.16	-49.75	-40	-9.75	-67.32	-51.45	11.80	13.50	H
	7231.58	-60.01	-40	-20.01	-66.37	-63.31	8.30	11.60	V
	10847.37	-54.80	-40	-14.80	-67.79	-56.32	10.48	12.00	V
	14463.16	-50.72	-40	-10.72	-67.71	-52.42	11.80	13.50	V
Highest	7361.60	-60.17	-40	-20.17	-66.41	-63.47	8.32	11.62	H
	11042.40	-54.08	-40	-14.08	-68.19	-55.76	10.52	12.20	H
	14723.20	-50.61	-40	-10.61	-68.11	-52.31	11.85	13.55	H
	7361.60	-59.98	-40	-19.98	-66.31	-63.28	8.32	11.62	V
	11042.40	-54.44	-40	-14.44	-68.26	-56.12	10.52	12.20	V
	14723.20	-51.25	-40	-11.25	-68.19	-52.95	11.85	13.55	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.